

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT: Rea et al.	)	
	)	
SERIAL NO.: 10/657,687	)	Examiner: VICKEY RONESI
	)	
FILED: September 8, 2003	)	Art Unit: 1796
	)	
TITLED: LUBRICATING OIL COMPOSITION	)	Confirmation No. 1241
FOR MARINE ENGINES	)	
	)	
	)	Atty. Docket No. 2002L007A

Assistant Commissioner for Patents  
Washington, DC 20231

**BRIEF ON APPEAL**

Sir:

This is an appeal from the decision of the Examiner to finally reject claims 1 through 19, all claims remaining in the above-identified patent application. This final rejection was presented in an Office Action mailed May 7, 2008. The Notice of Appeal was filed on November 7, 2008.

It is requested that the requisite fee set forth in 37 CFR Section 1.17(f) be charged to Deposit Account No. 05-1710.

**REAL PARTY IN INTEREST**

All rights to the above-identified application were assigned, via an unrecorded assignment, from the named inventors to Infineum International Limited, a company incorporated in England. Infineum International Limited is the real party in interest to these proceedings.

**RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences relating to this application and no decision in any other appeal or interference impacts the decision in the present appeal.

**STATUS OF CLAIMS**

The application now contains claims 1 through 19, as set forth in the attached Appendix. Claims 1 through 19, all claims remaining in this application, stand rejected. The rejection of claims 1 through 19 are being appealed.

**STATUS OF AMENDMENTS FILED SUBSEQUENT TO FINAL REJECTION**

A Response containing one amendment and remarks was filed on October 3, 2007. The Response was considered by the Examiner, but the Examiner maintained the standing rejections.

Along with this Appeal Brief, a proper Terminal Disclaimer is being submitted to overcome the rejection of claims 1-19 on the ground of nonstatutory obviousness-type double patenting over claims 1-14 of US Patent No. 6,642,188. The submitted Terminal Disclaimer has not been considered previously.

Also along with this Appeal Brief, an Affidavit according to Rule 1.132 is being submitted to support various arguments presented in the arguments portion of the Appeal Brief.

**SUMMARY OF THE CLAIMED SUBJECT MATTER**

The present invention is a lubricating oil composition suitable for use in a four stroke marine engine which comprises an oil of lubricating viscosity containing an admixture of: (a) 1 - 3.75 wt.% of an ashless dispersant; (b) a metal detergent; (c) an oil soluble molybdenum compound in an amount sufficient to provide 15 - 1,000 ppm molybdenum in the composition; (d) a zinc dialkyl dithiophosphate in an amount sufficient to provide at least 1,200 ppm phosphorus in the composition; and (e) a rust inhibitor system comprising (i) as a first rust inhibitor, an ethoxylated C<sub>4</sub>-C<sub>18</sub> alkyl phenol having 2-10 moles of ethylene oxide per mole in combination with a second rust inhibitor selected from the group consisting of (ii) a glycerol ester of a C<sub>8</sub>-C<sub>22</sub> fatty acid, (iii) a half ester of a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid and a C<sub>2</sub>-C<sub>4</sub> alkylene glycol and (iv) a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid or anhydride, said composition having a NOACK volatility less than 15%.

The oil of lubricating viscosity is described at page 2, line 18 to page 4, line 5. The ashless dispersant (a) is described at page 4, line 6 to page 6, line 27. The metal detergent (b) is described at page 6, line 29 to page 8, line 22. The oil soluble molybdenum compound (c) is described at page 8, line 24 to page 13, line 24. The zinc dialkyl dithiophosphate (d) is described at page 13, line 26 to page 15, line 2. The rust inhibitor (e) is described at page 15, line 4 to page 15, line 24.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

- (1) Whether claims 1-19 are unpatentable for being obvious under 35 U.S.C. §103(a) over US Patent No. 6,207,625 ("Ogano") in view of US Patent No. 3,893,168 ("Brehm") or US Patent No. 2,833,717 ("Whitacre").
- (2) Whether claims 1-9 and 11-19 are unpatentable for being obvious under 35 U.S.C. §103(a) over US Patent No. 6,444,624 ("Walker") in view of US Patent No. 3,876,550 ("Holubec") and further in view of US Patent No. 3,893,168 ("Brehm") or US Patent No. 2,833,717 ("Whitacre").
- (3) Whether claims 1-19 stand properly rejected on the ground of nonstatutory obviousness-type double patenting over claims 1-14 of US Patent No. 6,642,188 in light of the filed terminal disclaimer.

The application now contains claims 1 through 19 that stand or fall together.

### ARGUMENT

**(1) Rejection of Claims 1-19 under 35 U.S.C. §103(a) over US Patent No. 6,207,625 ("Organo") in view of US Patent No. 3,893,168 ("Brehm") or US Patent No. 2,833,717 ("Whitacre").**

The Examiner alleges claims 1-19 are unpatentable under 35 U.S.C. §103(a) over Organo in view of Brehm or Whitacre. The Examiner explicitly states that Organo fails to disclose the specific rust inhibitors in the claimed invention. However, the Examiner goes on to say the claimed invention comprising the rust inhibitors would have been obvious to one of ordinary skill in the art because Organo discloses a lubricant composition open to the use of a variety of known anti-rust agents and common anti-rust agents for lubricant compositions are taught in Brehm and Whitacre.

The rule of law is as follows: For a proper rejection under Section §103, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Further, a combination invention like the present invention must produce an unusual or surprising result in order to be nonobvious." *Kamei-Autokomfort v. Eurasian Automotive Products*, 553 F.2d 603, at 608 (9th Cir.), cert. denied, 434 U.S. 860, 98 S.Ct. 186, 54 L.Ed.2d 133 (1977).

The present invention as recited in claim 1 is a lubricating oil composition comprising an oil of lubricating viscosity containing an admixture of: (a) 1 - 3.75 wt.% of an ashless dispersant; (b) a metal detergent; (c) an oil soluble molybdenum compound in an amount sufficient to provide 15 - 1,000 ppm molybdenum in the composition; (d) a zinc dialkyl dithiophosphate in an amount sufficient to provide at least 1,200 ppm phosphorus in the composition; and (e) a rust inhibitor system comprising (i) as a first rust inhibitor, an ethoxylated C<sub>4</sub>-C<sub>18</sub> alkyl phenol having 2-10 moles of ethylene oxide per mole in combination with a second rust inhibitor selected from the group consisting of (ii) a glycerol ester of a C<sub>8</sub>-C<sub>22</sub> fatty acid, (iii) a half ester of a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid and a C<sub>2</sub>-C<sub>4</sub> alkylene glycol and (iv) a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid or anhydride. One of the important aspects of the invention is the surprisingly good rust performance of the claimed composition.

In the Office Action, the Examiner clearly stated what he/she did to create this rejection under section 103. He/she combined Brehm and Whitacre which disclose various known rust inhibitors with Organo which discloses a lubricant composition that can include anti-rust agents.

The Examiner seems to dismiss the fact that the claimed invention claims a **specific and novel rust inhibitor system** in combination with the other recited components enables the claimed composition to exhibit superior rust performance. The superior rust performance of the present invention which is enabled by the **specific and novel rust inhibitor system** in combination with the other recited components is presented and attested to in an attached affidavit submitted pursuant to Rule 1.132.

Because the claimed invention produces a surprising result in terms of rust performance, the claimed invention is not obvious in light of Organo in view of Brehm or Whitacre. Applicants respectfully request the withdrawal of this rejection.

Claims 2-19 directly or indirectly, depend from claim 1 of the present invention and recite the invention in varying scope. For the reasons discussed above, Organo in view of Brehm or Whitacre does not teach all of the limitations in claim 1 as further limited by claims 2-19. Specifically, the claimed invention produces a surprising result in terms of rust performance. Claims 2-19 are patentable over Organo in view of Brehm or Whitacre, and Applicants respectfully request the withdrawal of this rejection.

**(2) Rejection of Claims 1-9 and 11-19 under 35 U.S.C. §103(a) over US Patent No. 6,444,624 ("Walker") in view of US Patent No. 3,876,550 ("Holubec") and further in view of US Patent No. 3,893,168 ("Brehm") or US Patent No. 2,833,717 ("Whitacre").**

The Examiner alleges claims 1-9 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker in view of Holubec and further in view of Brehm or Whitacre. The Examiner explicitly states that Walker fails to disclose the specific rust inhibitors in the claimed invention. However, the Examiner goes on to say the claimed invention comprising the rust inhibitors would have been obvious to one of ordinary skill in the art because Walker discloses a lubricant composition open to the use of a variety of known anti-rust agents and common anti-rust agents for lubricant compositions are taught in Holubec, Brehm and Whitacre.

The claimed invention and the rule of law appear above. Similar to the above, in order to create this rejection under section 103, the Examiner combined Holubec, Brehm and Whitacre which disclose various known rust inhibitors with Walker which discloses a lubricant composition that can include anti-rust agents.

Once again, the Examiner seems to dismiss the fact that the claimed invention claims a **specific and novel rust inhibitor system** in combination with the other recited components enables the claimed composition to exhibit superior rust performance. The superior rust performance of the present invention which is enabled by the **specific and novel rust inhibitor system** in combination with the other recited components is presented and attested to in an attached affidavit submitted pursuant to Rule 1.132.

Because the claimed invention produces a surprising result in terms of rust performance, the claimed invention is not obvious in light of Walker in view of Holubec, Brehm or Whitacre. Applicants respectfully request the withdrawal of this rejection.

Claims 2-9 and 11-19 directly or indirectly, depend from claim 1 of the present invention and recite the invention in varying scope. For the reasons discussed above, Walker in view of Holubrec, Brehm or Whitacre does not teach all of the limitations in claim 1 as further limited by claims 2-9 and 11-19. Specifically, the claimed invention produces a surprising result in terms of rust performance. Claims 2-9 and 11-19 are patentable over Walker in view of Holubrec, Brehm or Whitacre, and Applicants respectfully request the withdrawal of this rejection.

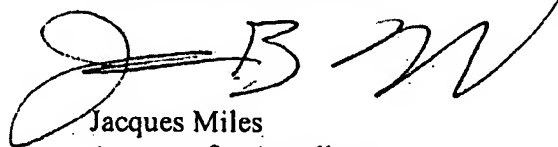
**(3) Rejection of claims 1-19 on the ground of nonstatutory obviousness-type double patenting over claims 1-14 of US Patent No. 6,642,188.**

A proper Terminal Disclaimer has been filed along with this Appeal Brief to overcome the rejection of claims 1-19 on the ground of nonstatutory obviousness-type double patenting over US Patent No. 6,642,188. In light of the submitted Terminal Disclaimer, Applicants respectfully request the withdrawal of this rejection.

**SUMMARY**

For the foregoing reasons, Appellants submit that (1) claims 1-19 are not obvious over Ogano in view of Brehm or Whitacre and (2) claims 1-9 and 11-19 are not obvious over Walker in view of Holubec and further in view of Brehm or Whitacre. Also, the rejection of claims 1-19 on the ground of nonstatutory obviousness-type double patenting over claims 1-14 of US Patent No. 6,642,188 is no longer valid in light of the submitted Terminal Disclaimer. Accordingly, Appellants request that the Examiner's decision to finally reject the claims of this application on the grounds stated above be reversed and the appealed claims be deemed allowable.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J B M', is written over the typed name 'Jacques Miles'.

Jacques Miles  
Attorney for Appellants  
Registration No. 42,888  
(908) 474-2757

Infineum USA L.P.  
1900 East Linden Avenue  
P.O. Box 710  
Linden, NJ 07036

April 2, 2009

**Claims Appendix**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (original) A lubricating oil composition suitable for use in a four stroke marine engine which comprises an oil of lubricating viscosity containing an admixture of
  - (a) 1 - 3.75 wt.% of an ashless dispersant;
  - (b) a metal detergent;
  - (c) an oil soluble molybdenum compound in an amount sufficient to provide 15 - 1,000 ppm molybdenum in the composition;
  - (d) a zinc dialkyl dithiophosphate in an amount sufficient to provide at least 1,200 ppm phosphorus in the composition;
  - (e) a rust inhibitor system comprising (i) as a first rust inhibitor, an ethoxylated C<sub>4</sub>-C<sub>18</sub> alkyl phenol having 2-10 moles of ethylene oxide per mole in combination with a second rust inhibitor selected from the group consisting of (ii) a glycerol ester of a C<sub>8</sub>-C<sub>22</sub> fatty acid, (iii) a half ester of a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid and a C<sub>2</sub>-C<sub>4</sub> alkylene glycol and (iv) a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid or anhydride; and
  - (f) optionally, a viscosity modifier, said composition having a NOACK volatility less than 15%.
2. (original) The composition of claim 1 wherein the second rust inhibitor is the glycerol ester and the composition further comprises a third rust inhibitor selected from the group consisting of (i) a half ester of a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid and a C<sub>2</sub>-C<sub>4</sub> alkylene glycol and (ii) a C<sub>8</sub>-C<sub>22</sub> alkyl or alkenyl succinic acid or anhydride.
3. (original) The composition of claim 1 wherein the glycerol ester is a mixture comprising about 55 wt.% glycerol monooleate, 40 wt.% glycerol dioleate and about 5 wt.% glycerol trioleate.

4. (previously presented) The composition of claim 1 wherein the ethoxylated alkyl phenol is a 4 mole ethoxylate of nonylphenol.
5. (original) The composition of claim 1 wherein the half ester is propylene glycol dodecyl succinate.
6. (original) The composition of claim 1 wherein the alkyl or alkenyl succinic acid or anhydride is dodecyl or isomerized octadecenyl succinic acid anhydride.
7. (original) The composition of claim 1 wherein each rust inhibitor is present in a range of 0.05 to 1.5 wt.% of the composition.
8. (original) The composition of claim 4 wherein the second rust inhibitor is dodecyl succinic acid, and each rust inhibitor is present in the range of 0.10 to 0.40 wt.%.
9. (previously presented) The composition of claim 1 wherein the metal detergent is a calcium sulfonate or a calcium phenate or a mixture thereof.
10. (original) The composition of claim 1 wherein the dispersant is a polyisobutenyl succinimide wherein the polyisobutenyl has an Mn of 1600-2500.
11. (original) The composition of claim 1 wherein the molybdenum compound is a molybdenum dithiocarbamate.
12. (original) The composition of claim 1 wherein the molybdenum compound is a trinuclear compound of the formula  $\text{Mo}_3\text{S}_k\text{L}_n\text{Q}_z$  wherein L represents oil soluble organo groups, n is 1-4, k is 4-7 and Q is a neutral electron donating compound and z is 0.5.
13. (original) The composition of claim 1 wherein the zinc dialkyl dithiophosphate is present in an amount sufficient to provide up to 2,000 ppm P in the composition.

14. (original) The composition of claim 13 wherein the zinc dialkyl dithiophosphate comprises secondary alkyl groups having 2 to 8 carbon atoms.
15. (original) The composition of claim 1 wherein the viscosity modifier is shear stable and is present in an amount of 0.5 to 5.0 wt.%.
16. (original) The composition of claim 1 further comprising one or more phosphorus-free antioxidants.
17. (original) The composition of claim 1 further comprising an antifoam agent.
18. (original) The composition of claim 1 further comprising a lube oil flow improver.
19. (previously presented) A method of operating and lubricating a four cycle marine engine which comprises supplying to the engine with a lubricating oil composition according to claims 1.



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Reply to Office action of May 7, 2008

**Evidence Appendix**

None

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**Related Proceedings Appendix**

None